

at 2. Applicant respectfully requests consideration of the references in view of the following remarks.

First, Applicant respectfully notes that the Office considered these very references in the parent application, which is now U.S. Patent No. 6,339,189. It is unclear why the Office has now elected not to consider them after previously considering them on March 24, 2000, as noted in the PTO-1449 forms submitted in the parent application.

Second, with respect to the second reference and as noted in Applicant's prior Amendment, the Office was provided a publication date of 1990 on August 10, 2001. "DYNASYLAN organofunctional silanes..." is an excerpt from Hüls, "Application of organofunctional silanes" with a publication date of 1990, as noted on page 3 of Applicant's specification. Accordingly, because a date has been previously provided, Applicant respectfully requests consideration of the reference, which the Office already has in its files.

Third, with respect to the first reference, Applicant respectfully submits that the date of publication for "Taschenbuch der Kunststoff-Additive," is 1990, as set forth in the PCT International Preliminary Examination Report dated April 7, 1999 (courtesy copy attached). Accordingly, Applicant requests consideration of this reference, which the Office already has in its files.

III. Objection to the Specification

The Office objected to the specification as containing grammatical errors, such as run-on sentences and misspellings, and improperly using trademarks. Final Office Action at 2-3. Applicant respectfully requests the objection be held in abeyance until

indication of allowable subject matter. The specification will be amended to overcome these objections at that time.

IV. Rejections Under 35 U.S.C. § 112, Second Paragraph

The Office rejected claims 47 and 48 under 35 U.S.C. § 112, second paragraph, as indefinite. Final Office Action at 3-4. Applicant has amended the claims, as suggested by the Examiner. Because the rejection has been rendered moot by these amendments, Applicant respectfully requests the rejection be withdrawn.

V. Rejection Under 35 U.S.C. § 102(b)

The Office maintained its rejection of claim 33 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,561,185 to Hashimoto et al. ("Hashimoto") for the reasons disclosed at pages 5, 11, and 12 of the Final Office Action.¹ Applicant respectfully traverses this rejection for at least the reasons of record as well as for the following reasons.

In order to anticipate a claim, a reference must teach, either expressly or inherently, each and every limitation of the claim. M.P.E.P. § 2131; *PIN/NIP, Inc., v. Platte Chem. Co.*, 64 U.S.P.Q.2d 1344, 1349 (Fed. Cir. 2002). Applicant submits that Hashimoto does not expressly or inherently teach all limitations of pending method claim 33. The reference does not expressly or inherently teach "a method for controlling the strippability of a coating layer" or "a polyolefinic compound which contains at least one unsaturation and at least one carboxyl group in the polymer chain."

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¹ While the rejection was made under Section 102(b), Applicant believes that this rejection ought to have been made under Section 102(e), because this application's earliest effective filing date is March 13, 1997. Regardless, the pending claims are not anticipated under any subsection of 102 for substantially the same reasons.

First, Applicant has amended claim 33 to move the recited relationship between strippability and the polyolefinic compound, which contains at least one unsaturation and at least one carboxyl group in the chain, from the preamble to the body of the claim. Applicant notes that while this limitation, which breathed life and meaning into the claim, was already present in the claim's preamble, this amendment more explicitly identifies this relationship as a limitation of the claims that Hashimoto must teach. M.P.E.P. § 2131. A review of the reference, however, shows that Hashimoto does not teach or suggest that relationship. It merely discloses: "an electric wire . . . that is good in workability of the covering layer at the end of the covered wire in the step of removing the covering layer." Hashimoto at col. 2, lines 35-45. Notably, there is no disclosure of how to make a product while controlling the strippability. Indeed, a person of ordinary skill in the art could not discern from it which component, or mixtures of components from col. 3, lines 7-47, yields the property of workability.

For example, Applicant directs the Examiner's attention to Table 4 of Hashimoto's disclosure. The Office has alleged (and Applicant disagrees, as detailed below) that the polyethylene or the polypropylene modified with maleic anhydride (according to Table 1, MAH-PE or MAH-PP, respectively) meets the claim limitation of "a polyolefinic compound which contains at least one unsaturation and at least one carboxyl group in the polymer chain." Final Office Action at 5. Yet, Table 4 unequivocally shows that neither the presence nor the absence of what the Office has alleged to be a polyolefinic compound influences, let alone controls, the workability at the end of the wire. In particular, Applicant highlights Comparative Examples 12-17, which contain MAH-PE without exhibiting good workability at the end of the wire. By not identifying which component(s) are relevant and how so, one of ordinary skill in the art

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could not read Hashimoto to find a *method* of *controlling* strippability. Accordingly, Hashimoto does not expressly or inherently teach the limitations of claim 33, as amended.

Second, even if the Office were to find the pending method claim anticipated by the compositions of Hashimoto, Applicant respectfully submits that Hashimoto still fails to teach "a polyolefinic compound which contains at least one unsaturation and at least one carboxyl group in the polymer chain." Applicant agrees with the Examiner (Final Office Action at 5) that Hashimoto discloses an electric wire with a cover layer composed of a composition prepared by blending, *inter alia*, "a modified polyethylene in an amount of 1.5 to 30% by weight, which polyethylene is modified with an unsaturated carboxylic acid or its derivative." Hashimoto at col. 3, lines 37-40. Yet, Applicant notes that Hashimoto's unmodified polyethylene does not contain at least one unsaturation in the chain, because, as the Office is well aware, polyethylene is by definition a saturated chain. See, e.g., HAWLEY'S CONDENSED CHEMICAL DICTIONARY at 894-95 (14th ed. 2001) (courtesy copy enclosed).² Thus, in order to anticipate the "at least one unsaturation . . . in the chain" must come from the modification with an unsaturated carboxylic acid or its derivative.

However, the detailed description at column 4, lines 34-67 of the modified polyethylene of Hashimoto establishes that no unsaturation in the chain is provided by the modification. Hashimoto describes its polyethylene modified with an unsaturated carboxylic acid as follows: "To modify a polyethylene with an unsaturated carboxylic

² Applicant further notes that it appears as though the Office misunderstands Applicant's specification, particularly with respect to polyethylene, as discussed in the paragraph bridging pages 19 and 20. See Final Office Action at 11. In this passage, Applicant does not define polyethylene as having at least one unsaturation as the Office seems to imply.

acid or the like, for example, the polyethylene and the unsaturated carboxylic acid or the like are melted and kneaded in the presence of a peroxide at a temperature that is equal to or over the 1-min half-life period temperature of that peroxide." Hashimoto at col. 4, lines 39-44. Understood in context, therefore, the modified polyethylene of Hashimoto does not have at least one unsaturation in the chain. At best, an unsaturation may be found in a branch that is appended to the chain.

Hashimoto, therefore, teaches that an unsaturated monocarboxylic acid would become saturated during catalysis. In other words, the double-bond providing the unsaturation would no longer exist once the peroxide initiates the reaction, and therefore the resultant product would not contain at least one unsaturation in the polymer chain as required by the claims. If the acid had more than one unsaturation, after reaction with the peroxide, remaining unsaturations (if any) would not be in the chain. Thus, Hashimoto does not anticipate "a polyolefinic compound which contains at least one unsaturation and at least one carboxyl group in the polymer chain."

Furthermore, the Office cannot maintain its rejection on the basis that "Hashimoto teaches that the polymeric composition may comprise polymers of the diene compound such as butadiene."³ Final Office Action at 12. The **only** use of diene disclosed by Hashimoto is for aromatic vinyl/diene block copolymers, which are a separate and distinct compound that may be added to the composition. Hashimoto at col. 5, lines 32-65. The block copolymers consist of blocks of A and B, where the blocks of A may be blocks of polystyrene and the blocks of B may be blocks of polybutadiene. *Id.* at lines 37-48. These aromatic vinyl/diene block copolymers, alone

³ Applicant notes that the Examiner's argument (Final Office Action at 11) may be based on a misunderstanding of Applicant's previous response. As stated in the response, butadiene is merely exemplary.

or as part of a composition, do not anticipate claim 33, which requires "a polyolefinic compound which contains at least one unsaturation and at least one carboxyl group in the polymer chain." Even assuming that these block copolymers qualify as a "polyolefin compound," they do not have, at a minimum, at least one carboxyl group in the chain. The "at least one unsaturation" and "at least one carboxyl group" must be in the same chain, not separate chains in the same composition.

Accordingly, Applicant respectfully requests the pending rejection for anticipation be withdrawn.

VI. Rejection Under 35 U.S.C. § 103

The Office maintained the rejection of claims 34-50 under 35 U.S.C. § 103 as obvious over Hashimoto in view of U.S. Patent No. 4,801,639 to Hoshi et al. ("Hoshi") for the reasons disclosed at pages 6-11 and 12-15 of the Final Office Action. Applicant respectfully traverses this rejection at least for the reasons of record as well as for the following reasons.

With respect to obviousness in general, the Federal Circuit has admonished:

Measuring a claimed invention against the standard established by section 103 requires the oft-difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field.... [T]he best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement[s] for [a *prima facie* case of obviousness].

In re Dembiczak, 175 F.3d 994, 999 (Fed. Cir. 1999). Furthermore, "[t]o establish a *prima facie* case of obviousness, three basic criteria must be met." M.P.E.P. § 2143.

And the evidence of the *prima facie* case must be "clear and particular." *Dembiczak*, 175 F.3d at 999. In this case, the Office has failed to satisfy at least the first and third

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requirements: the references neither teach nor suggest all the claim limitations and there is no suggestion or motivation to modify or combine the references' teachings.

Hashimoto discloses a fire-retardant resin composition having (a) 20 to 60% by weight of a polypropylene-series resin, (b) 1 to 20% by weight of a polyethylene modified with an unsaturated carboxylic acid or its derivative, (c) 35 to 65% by weight of a metal hydrate, and (d) an ethylene-series copolymer. Hashimoto at col. 3, lines 8-16. Hashimoto also discloses that this compositions has "good workability of the covering layer at the end of the covered wire in the step of removing the covering layer." *Id.* at col. 2, lines 42-44. But as explained above in the traversal of the anticipation rejection, which is incorporated by reference herein, Hashimoto does not disclose at least two of the limitations present in method claim 33, and thus it cannot disclose all limitations present in claims depending from claim 33.

The Office has admitted that Hoshi does not teach "the characteristic of strippability." Final Office Action at 14. Accordingly, Hoshi cannot cure the deficiencies of Hashimoto. This deficiency is apparent, because Hoshi merely discloses a flame-retardant olefinic resin composition comprising (a) 100 parts by weight of a mixed resin consisting of an olefinic resin and a silane-grafted polymer obtained by grafting a silane to said olefinic resin, (b) 50 to 300 parts by weight of a hydrated metal compound, and (c) 0.1 to 30 parts by weight of a dicarboxylic acid or anhydride derivative. Hoshi at col. 2, lines 58-65.

Thus, Hashimoto and Hoshi fail to teach or suggest every limitation of method claim 33 (and thus all its dependent claims). In particular, neither reference teaches how to control the property of strippability, let alone associating the property of strippability with "adding to a polymeric composition forming said coating layer a

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polyolefinic compound which contains at least one unsaturation and at least one carboxyl group in the polymer chain." Thus, claim 33 is not unpatentable over Hashimoto in view of Hoshi. Therefore, claims 34-50 are nonobvious, at least for the reason they depend from claim 33. M.P.E.P. § 2143.03; *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Even if every limitation of claim 33 were disclosed between Hashimoto and Hoshi, the Office has not made a *prima facie* case of obviousness, because there is no "clear and particular" evidence of a motivation to combine the references. M.P.E.P. § 2143.01; *In re Dembiczak*, 175 F.3d at 999. Notably, Hashimoto lauds its composition: "[T]he covered electric wire of the second invention has excellent fire retardancy, mechanical properties, heat resistance, and abrasion resistance, . . . and the end workability in the covered electric wire is good. . . . [T]he covered electric wire has a merit in view of cost, which is quite valuable industrially." *Id.* at col. 9, lines 10-24. Thus, without any hint of a deficiency, a person of ordinary skill in the art would not be motivated to alter the composition of Hashimoto in any way. Indeed, Hoshi similarly provides no motivation to combine it with Hashimoto.

Applicant respectfully disagrees with the Office's belief that it has properly set forth a motivation to modify. In particular, the Office states that it "relied on the teachings of the Hoshi reference to provide a motivation for modifying Hashimoto with a known composition providing the same function which is to provide a conductor with flame retardant properties." Final Office Action at 15. Yet, according to the M.P.E.P., the mere overlap of functionality does not, in and of itself, conjure up a proper motivation to modify. See M.P.E.P. § 2144.06. Rather, a proper motivation to modify can be found only if: (a) the claimed composition shares the same functionality and (b)

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the claims are a mere combination of two prior art compositions in their entirety. See *In re Kerkhoven*, 205 U.S.P.Q. 1069, 1072 (CCPA 1980). Here, the resultant compositions of Applicant's claimed method are not a mere combination of compositions disclosed by Hashimoto and Hoshi.

Furthermore, the advantageous properties taught by Hoshi, which the Office has identified (Final Office Action at 13), do not supply a motivation to modify Hashimoto. Hashimoto's compositions already have the identified advantages. They do "not evolve large amounts of smoke or noxious corrosive gases when burned." Hashimoto at col. 2, lines 40-41. Moreover, Hashimoto's compositions have "excellent . . . mechanical properties." *Id.* at col. 9, lines 10-11. Thus, a person of ordinary skill in the art would not be motivated by Hoshi to modify them further.

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VII. Conclusion


In view of the foregoing remarks, Applicant submits that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicant therefore requests the entry of this Amendment, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: April 14, 2003

By: 
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Enclosures

- 1) PCT International Preliminary Examination Report dated April 7, 1999
- 2) Haley's Condensed Chemical Dictionary at pages 894-95

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APPENDIX TO AMENDMENT OF April 14, 2003

Version with Markings to Show Changes Made

Amendments to the Claims

33. (Three Times Amended) A method for controlling the strippability of a coating layer on an electrical conductor[, said coating layer having the property of strippability so that it can be stripped from said electric conductor, the electrical insulation properties of said coating layer being kept constant after exposure to moisture, said method] comprising adding to a polymeric composition forming said coating layer, a predetermined amount of a polyolefinic compound which contains at least one unsaturation and at least one carboxyl group in the polymer chain;

wherein said strippability is controlled by the addition of the polyolefinic compound; and

wherein the electrical insulation properties of said coating layer are kept constant after exposure to moisture.

47. (Amended) The method of claim 40 wherein the ratio of said at least one carboxyl group[s] to said at least one unsaturation ranges from 1:10 to 1:100 in said polyolefinic compound which contains at least one unsaturation and at least one carboxyl group in the polymer chain.

48. (Amended) The method of claim 40 wherein the ratio of said at least one carboxyl group[s] to said at least one unsaturation ranges from 1:10 to 1:50 in said

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polyolefinic compound which contains at least one unsaturation and at least one carboxyl group in the polymer chain.

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